This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): A titanium alloy member characterized in that:

it comprises 40% by weight or more titanium (Ti), a IVa group element and/or a Va group element other than the titanium, wherein a summed amount including the IVa group element and/or the Va group element as well as the titanium is 90% by weight or more, and one or more elements of an interstitial element group, consisting of oxygen (O), nitrogen (N) and carbon (C), in a summed amount of from 0.25 to 2.0% by weight, in a total amount of 100% by weight, and having a specific composition in which a compositional mean value of substitutional elements is $2.43 < Md < 2.49$ with regard to the energy level "Md" of the d-electron orbit and a compositional mean value of the substitutional elements is $2.86 < Bo < 2.90$ with regard to the bond order "Bo", the "Md" and the "Bo" each being a parameter obtained by the "DV-X α" cluster method;

it comprises grains which are a body-centered tetragonal crystal or a body-centered cubic crystal in which a ratio (c/a) of a distance between atoms on the c-axis with respect to a distance between atoms on the a-axis falls in a range of from 0.9 to 1.1; and

it has a texture, when a polar figure of the (110) or (101) crystal plane of the grains is measured parallelly to a plane, which involves a working direction, in ranges of $20° < \alpha'$ $< 90°$ and $0° < \beta < 360°$ by the Schlutz's reflection method, and when the respective measurement values (X), which distribute equally on the polar figure, are processed statistically, texture in which a value ($\nu 2/Xm^2$), which is obtained by dividing a secondary moment ($\nu 2$) around a mean value (Xm), being defined by the following equation, with a square of the mean value (Xm^2), is 0.3 or more, a value ($\nu 3/Xm^3$), which is obtained by

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dividing a tertiary moment (ν 3) around the mean value (Xm), being defined by the following equation, with a cube of the mean value (Xm^3), is 0.3 or more, and values (1.6Xm), which are 1.6 times or more of the mean value, are further involved in measurement values, which are measured in a range of $55° < \alpha' < 65°$ and in the range of β along the working direction;

Secondary Moment: $\nu 2 = \{ \Sigma \ (X-Xm)^2 \}/N$

Tertiary Moment: $\nu 3 = \{ \Sigma \ (X-Xm)^3 \}/N$

<u>wherein</u> (Note that N is a number of samplings.).

Claim 2 (Currently Amended): The titanium alloy member set forth in claim 1, ~~including one or more elements of an interstitial element group, consisting of oxygen (O),~~ ~~nitrogen (N) and carbon (C), in a summed amount of from 0.25 to 2.0% by weight~~ <u>exhibiting</u> <u>a dislocation density of $10^{11}/cm^2$ or less when cold working is carried out by 50% or more.</u>

Claim 3 (Currently Amended): The titanium alloy member set forth in claim ~~2~~ <u>1</u>, including one or more elements of said interstitial element group in a summed amount of from 0.6 to 1.5% by weight.

Claim 4 (Currently Amended): A process for producing a titanium alloy member <u>set</u> <u>forth in claim 1, comprising</u> ~~characterized in that it comprises~~:

~~preparing step of~~ preparing a raw material, the raw material comprising ~~titanium and~~ ~~an alloying element, and having a~~ <u>said</u> specific composition ~~in which a compositional mean~~ ~~value of substitutional elements is 2.43 < Md < 2.49 with regard to the energy level "Md" of~~ ~~the d-electron orbit and a compositional mean value of the substitutional elements is 2.86 <~~

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~~Bo < 2.90 with regard to the bond order "Bo", the "Md" and the "Bo" each being a parameter obtained by the "DV-X-α" cluster method~~; and

member forming step of forming a titanium alloy member comprising the raw material after the preparing step <u>and having said texture</u>.

Claim 5 (Currently Amended): The process for producing a titanium alloy member set forth in claim 4, wherein said preparing step is a powder preparing step in which a raw material powder for making the specific composition is prepared; and

said member forming step ~~is~~ <u>further comprises</u> a sintering step in which a sintered member is manufactured from the raw material powder after the powder preparing step.

Claim 6 (Currently Amended): The process for producing a titanium alloy member set forth in claim 4, wherein said member forming step ~~is~~ <u>further comprises</u> an ingot manufacturing step in which an ingot member is manufactured from said raw material after said preparing step.

Claim 7 (Original): The process for producing a titanium alloy member set forth in claim 5 or 6, further comprising a cold-working step in which said sintered member or ingot member is cold-worked.

Claim 8 (Original): The process for producing a titanium alloy member set forth in claim 7, wherein said cold-working step is a step in which a cold-working ratio is 10% or more; and

the process further comprises an age-treatment step, in which age-treatment is carried out so that the Larson·Miller parameter "P" (hereinafter simply referred to as the parameter

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"P") falls in a range of from 8.0 to 18.5 at a treatment temperature falling in a range of from 150°C to 600°C, after said cold-working step.

Claim 9 (Original): The process for producing a titanium alloy member set forth in claim 8, wherein said age-treatment step is a step in which said parameter "P" falls in a range of from 8.0 to 12.0 at said treatment temperature falling in a range of from 150°C to 300°C; and

the titanium alloy member obtained after the age-treatment step has a tensile elastic strength of 1,000 MPa or more, an elastic deformation capability of 2.0% or more and a mean Young's modulus of 75 GPa or less.

Claim 10 (Original): The process for producing a titanium alloy member set forth in claim 8, wherein said age-treatment step is a step in which said parameter "P" falls in a range of from 12.0 to 14.5 at said treatment temperature falling in a range of from 300°C to 600°C; and

the titanium alloy member obtained after the age-treatment step has a tensile elastic strength of 1,400 MPa or more, an elastic deformation capability of 1.6% or more and a mean Young's modulus of 95 GPa or less.

Claims 11-14 (Cancelled).